

**REMARKS**

Claims 1, 3, 4, 6, 7, 14 and 15 are pending in the present application. Claim 1 is in independent form. Claim 1 is amended. Claims 2, 5, 8-13 and 16-20 are cancelled. In view of the above amendments and the following remarks, favorable reconsideration and allowance of the present application is respectfully requested.

I. Specification Amendment

By the present Amendment, the Specification is amended. In the present application, Applicants' priority claim to International Patent Application No. PCT/JP2004/003810 and Japanese Application No. 2003-078846 was included in the Declaration filed on September 20, 2005, which was filed within the time period set forth in 37 C.F.R. § 1.78(a). Further, the information concerning the priority claim was recognized by the USPTO as shown by its inclusion in the Official Filing Receipt mailed June 6, 2006 (copy enclosed). Applicants now submit the present Amendment to amend the specification to include specific reference to these priority claims.

MPEP § 201.11.III.D states (emphasis added):

If an applicant includes a benefit claim in the application but not in the manner specified by 37 C.F.R. § 1.78(a) (e.g., if the claim is included in an oath or declaration or the application transmittal letter) within the time period set forth in 37 C.F.R. § 1.78(a), the Office will not require a petition under 37 C.F.R. § 1.78(a) and the surcharge under 37 C.F.R. § 1.17(t) to correct the claim if the information concerning the claim was recognized by the Office as shown by its inclusion on the filing receipt.

Therefore, according to MPEP § 201.11.III.D (recited above), a petition under 37 C.F.R. § 1.78(a) and surcharge under 37 C.F.R. § 1.17(t) are not required.

Applicants request entry of this amendment to the specification and request proper recognition of this priority claim to International Patent Application No.

PCT/JP2004/003810 and Japanese Application No. 2003-078846.

II. Claim Amendments

By the present Amendment, claim 1 is amended. The amendments to claim 1 are supported, at least, paragraph [0052] of the published Specification, U.S. Publication No. 2006/0201200 A1. Thus, Applicants submit that the amendments do not introduce new matter.

III. Example Embodiments

Example embodiments of the present application yield a remarkable effect such that "...because EDTA combines with a metal contained in the borosilicate glass so as to form a complex salt, a Fe concentration of high silicate glass to be produced is further lowered. This makes it possible to obtain high silicate glass having substantially the same UV transmittance as quartz glass at a wavelength of approximately 185 nm." U.S. Publication No. 2006/0201200 A1, paragraph [0053]. This is a remarkable effect which cannot be obtained when a metal such as MnO is used (i.e., which can be obtained only when a specific metal such as cerium or chromium is used). See paragraph [0078] of U.S. Publication No. 2006/0201200 A1.

IV. CITED ART REJECTIONS

*Claims 1, 3, 4, 9 and 17-20 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Nakagawa et al., Japanese Publication No. JP 57-188432 (hereinafter "JP '432"), in view of Aulich et al. (hereinafter "Aulich"), U.S. Patent No. 4,294,811.*

*Claims 5 and 10-12 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nakagawa in view of Aulich and in further view of Elmer, U.S. Patent No. 3,113,855.<sup>1</sup>*

*Claims 17-20 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Nakagawa in view of Aulich or Nakagawa et al., Japanese Patent Publication No. 57-205337 (hereinafter "JP '337").*

Applicants respectfully traverse the rejection.

Amended independent claim 1 is directed to a method for producing high silicate glass, wherein (*inter alia*) "when the borosilicate glass contains cerium or chromium, the borosilicate glass is subjected repeatedly to another heat treatment and another acid treatment between the acid-treatment step and the sintering step" and "a last acid treatment of the another acid treatment performed repeatedly is an acid treatment by using acid containing ethylenediamine tetraacetic acid." Applicants submit that the combination of Nakagawa, Aulich and JP '337 fails to explicitly teach, or otherwise suggest, the above features recited in amended independent claim 1.

In particular, acknowledging the deficiencies of Nakagawa and Elmer, the rejection states that "[b]oth Aulich and Nakagawa '337 discloses the use of EDTA in order to further treat the [produced glass] with high ultraviolet transmittance. (Abstract). It would have been obvious to one of ordinary skill in the art to include the EDTA treatment taught by Nakagawa '337 in the process of Nakagawa '432 or Aulich. The rationale to include the EDTA as taught by Nakagawa '337 in the high silicate glass production is the motivation by the teaching of Nakagawa '337 that to do so would remove metal oxides from the glass and predictably increase the glass

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<sup>1</sup> The Examiner refers to U.S. Patent No. 3,113,855 as "Corning Glass Works." However, the '855 Patent belongs to Elmer and is assigned to Corning Glass Works. Thus, Applicants refer to the reference as "Elmer" in order to avoid any ambiguity in the arguments made of the record.

transmittance (Page 4, Paragraph 2).” Office Action mailed March 11, 2010, p. 5 (emphasis added).

However, as previously discussed, Applicants argued that Aulich does not teach, or suggest, a borosilicate glass including an oxide of the element of cerium or chromium.

JP ‘337 teaches that “...a borate glass composed mainly of  $\text{SiO}_2$ ,  $\text{B}_2\text{O}_3$  and  $\text{Na}_2\text{O}$ ...” is used. JP ‘337, Machine Translation, p. 3. There is no teaching, or suggestion, in JP ‘337 that the borate glass contains an oxide of the one element of cerium or chromium.

As such, Applicants submit that Aulich and Nakagawa ‘337 neither disclose, nor suggest, that EDTA is used when a specific metal such as cerium or chromium is used.

For at least these reasons, Applicants submit that Nakagawa in view of Aulich or JP ‘337 fails to explicitly teach, or otherwise, suggest, a method for producing high silicate glass, wherein “when the borosilicate glass contains cerium or chromium, the borosilicate glass is subjected repeatedly to another heat treatment and another acid treatment between the acid-treatment step and the sintering step” and “a last acid treatment of the another acid treatment performed repeatedly is an acid treatment by using acid containing ethylenediamine tetraacetic acid” as recited in amended independent claim 1.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejections to independent claim 1, and claims 3, 4, 6, 7, 14 and 15 at least by virtue of their dependency on independent claim 1.

Claims 5, 9-12 and 17-20 are cancelled.

**CONCLUSION**

Accordingly, in view of the above, reconsideration of the rejections and allowance of each of claims 1, 3, 4, 6, 7, 14 and 15 in connection with the present application is earnestly solicited.

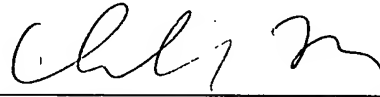
Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By



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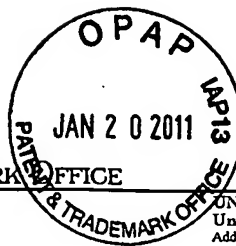
  
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10/549,609	09/20/2005	1731	900	12480-000144/US	4	15	1

CONFIRMATION NO. 8155

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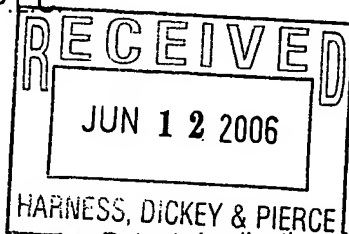
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## FILING RECEIPT



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Date Mailed: 06/06/2006



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## Applicant(s)

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Power of Attorney: The patent practitioners associated with Customer Number **30593**.

## Domestic Priority data as claimed by applicant

This application is a 371 of PCT/JP04/03810 03/19/2004

## Foreign Applications

JAPAN 2003-078846 03/20/2003

If Required, Foreign Filing License Granted: 06/02/2006

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US10/549,609**

Projected Publication Date: 09/14/2006

Non-Publication Request: No

Early Publication Request: No

Title

## Process for producing high silicate glass and high silicate glass

**Preliminary Class**

205

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